1. To estimate the one-sided limit of the function below as x approaches 6 from the right, which of the following sets of numbers should you use?

$$\frac{\frac{6}{x} - 1}{x - 6}$$

A. $\{5.9000, 5.9900, 5.9990, 5.9999\}$

B. $\{6.0000, 6.1000, 6.0100, 6.0010\}$

C. $\{5.9000, 5.9900, 6.0100, 6.1000\}$

D. $\{6.1000, 6.0100, 6.0010, 6.0001\}$

E. $\{6.0000, 5.9000, 5.9900, 5.9990\}$

---

2. Based on the information below, which of the following statements is always true?

$$f(x) \text{ approaches } \infty \text{ as } x \text{ approaches } 4.$$

A. $f(x)$ is close to or exactly ∞ when x is large enough.

B. $f(x)$ is close to or exactly 4 when x is large enough.

C. $f(x)$ is undefined when x is close to or exactly 4.

D. x is undefined when $f(x)$ is close to or exactly ∞.

E. None of the above are always true.

---

3. To estimate the one-sided limit of the function below as x approaches 1 from the left, which of the following sets of numbers should you use?

$$\frac{\frac{1}{x} - 1}{x - 1}$$

A. $\{0.9000, 0.9900, 1.0100, 1.1000\}$

B. $\{0.9000, 0.9900, 0.9990, 0.9999\}$

C. $\{1.0000, 1.1000, 1.0100, 1.0010\}$

D. $\{1.0000, 0.9000, 0.9900, 0.9990\}$

E. $\{1.1000, 1.0100, 1.0010, 1.0001\}$

---

4. Evaluate the one-sided limit of the function $f(x)$ below, if possible.

$$\lim_{x \to 7^+} \frac{5}{(x+7)^4} + 9$$

A. $f(7)$

B. ∞

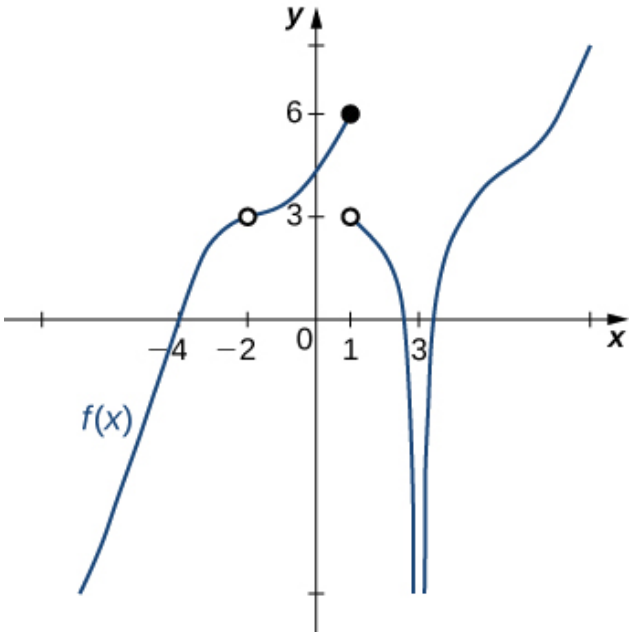
C. $-\infty$

D. The limit does not exist

E. None of the above

---

5. For the graph below, find the value(s) a that makes the statement true: $\lim_{x \to a} f(x) = 0$.



A. 0

B. 3

C. -4

D. Multiple a make the statement true.

E. No a make the statement true.

---

6. Based on the information below, which of the following statements is always true?

$$f(x) \text{ approaches } 19.045 \text{ as } x \text{ approaches } 8.$$

A. $f(19)$ is close to or exactly 8

B. $f(19) = 8$

C. $f(8) = 19$

D. $f(8)$ is close to or exactly 19

E. None of the above are always true.

---

7. Evaluate the one-sided limit of the function $f(x)$ below, if possible.

$$\lim_{x \to 6^-} \frac{-8}{(x-6)^3} + 2$$

A. $-\infty$

B. $f(6)$

C. ∞

D. The limit does not exist

E. None of the above

---

8. Evaluate the limit below, if possible.

$$\lim_{x \to 4} \frac{\sqrt{7x-3} - 5}{2x - 8}$$

A. ∞

B. 1.323

C. 0.050

D. 0.100

E. None of the above

---

9. Evaluate the limit below, if possible.

$$\lim_{x \to 7} \frac{\sqrt{5x - 10} - 5}{3x - 21}$$

A. 0.100

B. 0.745

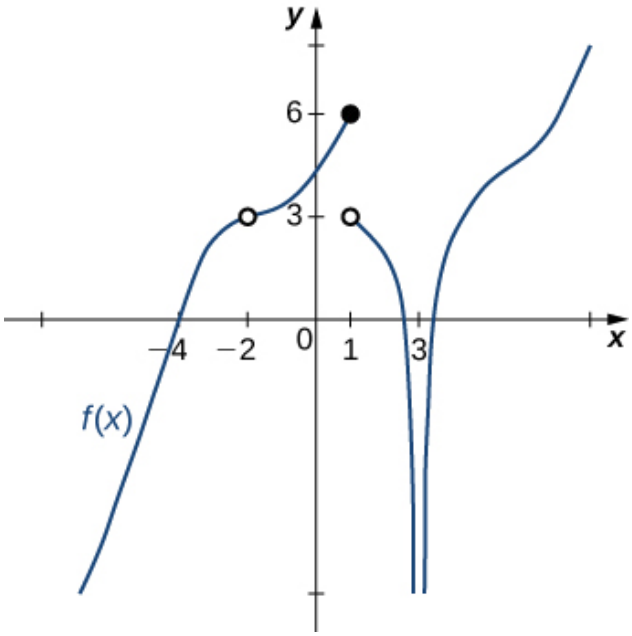
C. ∞

D. 0.033

E. None of the above

---

10. For the graph below, find the value(s) a that makes the statement true: $\lim_{x \to a} f(x)$ does not exist.



A. 1

B. 3

C. -2

D. Multiple a make the statement true.

E. No a make the statement true.
